

Abstract:

Method for Disintegrating and Granulating Slags and Device for Carrying out said Method

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The invention describes a method for disintegrating and granulating slags, in which the molten slag is ejected into a granulation chamber by the aid of a propulsion jet, wherein gases, in particular air or oxygen, are introduced into the molten slag to form a foamed slag and, furthermore, the temperature of the foamed slag is raised to a temperature of above 1350°C, in particular 1420° to 1680°C, by the aid of fuels such as, e.g., coal introduced into the foamed slag, and the foamed slag is ejected into a granulation chamber. The device includes a tundish (1) into which a gas lance (20) opens and/or in whose bottom tuyeres (2) are arranged, as well as a foamed slag overflow (5) and an outlet opening (6) for slag, wherein the tundish (1) carries a pressure-proof lid (8) to which a sluice (9) is connected to charge solids and coal above the slag bath, and a lance (7) opens into the slag outlet opening (6) to feed a carrier gas aimed to eject the foamed slag (4). (Fig. 1)

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(21) Internationales Aktenzeichen: PCT/AT00/00118 (22) Internationales Anmeldedatum: 4. Mai 2000 (04.05.00) (30) Prioritätsdaten: A 802/99 5. Mai 1999 (05.05.99) AT (71) Anmelder (für alle Bestimmungsstaaten ausser US): "HOLDERBANK" FINANCIERE GLARUS AG [CH/CH]; Insel 14, CH-8750 Glarus (CH). (72) Erfinder; und (75) Erfinder/Anmelder (nur für US): <u>EDLINGER</u> , Alfred [AT/CH]; Chiemattweg 31, CH-5400 Baden (CH). (74) Anwalt: HAFNER, Thomas, M.; Schottengasse 3a, A-1014 Wien (AT).		(81) Bestimmungsstaaten: AU, US, ZA, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Veröffentlicht <i>Mit internationalem Recherchenbericht. Vor Ablauf der für Änderungen der Ansprüche zugelassenen Frist; Veröffentlichung wird wiederholt falls Änderungen eintreffen.</i>

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(54) Title: METHOD FOR REDUCING AND GRANULATING SLAG AND A DEVICE FOR CARRYING OUT THIS METHOD

(54) Bezeichnung: VERFAHREN ZUM ZERKLEINERN UND GRANULIEREN VON SCHLACKEN SOWIE VORRICHTUNG ZUR DURCHFÜHRUNG DIESER VERFAHRENS

(57) Abstract

The invention relates to a method for reducing and granulating slag, according to which the molten slag is expelled into a granulating chamber by a propulsion jet. Gases, in particular, air or oxygen are fed into the molten slag to form foamed slag and the temperature of said foamed slag is raised to a temperature ranging between 1420° and 1680° C by the introduction of fuels, such as coal. The foamed slag is then expelled into a granulating chamber. The device has a tundish (1), into which a gas lance (20) opens and/or in whose base nozzles are located (2), in addition to a foamed slag overflow (5) and a slag outlet (6). The tundish (1) is provided with a pressure-tight lid (8), to which a sluice (9) is connected above the slag bath for introducing solid matter and coal. A lance (7) for introducing a carrier gas which expels the foamed slag (4) opens into the slag outlet (6).

